

## IN THE CLAIMS

What is claimed is:

- 1 1. A programmable logic device assembly, comprising:
- 2 a programmable logic circuit that provides functions according to
- 3 configuration data including a self-test function; and
- 4 at least one nonvolatile store coupled to the programmable logic circuit
- 5 that provides self-test configuration data for the programmable logic circuit
- 6 and can subsequently store user configuration data.
- 1 2. The programmable logic device assembly of claim 1, wherein:
- 2 the programmable circuit can provide a self-test result when
- 3 configured for self-test function.
- 1 3. The programmable logic device assembly of claim 2, further including:
- 2 a test port for providing the self-test result in a predetermined format.
- 1 4. The programmable logic device assembly of claim 1, wherein:
- 2 the at least one nonvolatile store includes a first nonvolatile store
- 3 formed with the programmable logic circuit on a single integrated circuit die.
- 1 5. The programmable logic device assembly of claim 4, wherein:
- 2 the first nonvolatile store includes re-programmable nonvolatile circuit

3 elements.

1 **6.** The programmable logic device assembly of claim 5, wherein:

2 the first nonvolatile store includes electrically erasable programmable  
3 read-only-memory cells.

1 **7.** The programmable logic device assembly of claim 4, wherein:

2 the self-test configuration data in the at least one nonvolatile store is  
3 set by at least one manufacturing process step.

1 **8.** The programmable logic device assembly of claim 7, wherein:

2 the at least one nonvolatile store includes a mask programmable read-  
3 only-memory that stored self-test configuration data and a separate  
4 nonvolatile memory that can store user configuration data.

1 **9.** The programmable logic device assembly of claim 1, wherein:

2 the at least one nonvolatile store includes at least two sectors and self-  
3 test configuration data is stored in a first sector.

1 **10.** The programmable logic device assembly of claim 9, wherein:

2 the first sector is a boot sector.

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1 11. A method, comprising the steps of:  
2 performing a self-test on a programmable logic circuit according to  
3 self-test configuration data in a self-test nonvolatile store; and  
4 storing user configuration data in a user nonvolatile store if the  
5 programmable logic circuit passes the self-test.

1 12. The method of claim 11, wherein:  
2 the self-test nonvolatile store is the same as the user nonvolatile store.

1 13. The method of claim 12, wherein:  
2 storing user configuration data includes programming user  
3 configuration data in locations that stored self-test configuration data.

1 14. The method of claim 12, wherein:  
2 storing user configuration data includes programming user  
3 configuration data in locations that are different than those that store self-test  
4 configuration data.

1 15. The method of claim 11, further including:  
2 forming the self-test nonvolatile on the same die as the programmable  
3 logic circuit.

1 16. The method of claim 11, further including:

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*ale* assembling the programmable logic circuit one die with the  
3 nonvolatile store on another die into one package.

1 17. The programmable logic circuit of claim 16, wherein:

2 the one package is a multi-chip module.

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1 **18.** A programmable logic self-test method, comprising the steps of:  
2 storing self-test information in a first nonvolatile store that places a  
3 programmable logic circuit into a self-test configuration;  
4 executing a self-test on the programmable logic circuit; and  
5 providing user configuration information that places the programmable  
6 logic circuit in a user configuration.

1 **19.** The method of claim 18, wherein:  
2 the user configuration data is stored in the first nonvolatile store.

1 **20.** The method of p claim 18, wherein:  
2 the user configuration data is stored in a second nonvolatile store that  
3 is different than the first nonvolatile store.